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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/025,550	12/26/2001	Katsuhiko Suzuki	H07-138280M/NHK	8312

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03/18/2003

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EXAMINER

DOTE, JANIS L

ART UNIT

PAPER NUMBER

1756

DATE MAILED: 03/18/2003

3

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/025,550

Applicant(s)

SUZUKI et al

Examiner

J. DOTE

Group Art Unit

1756

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- ☒ Responsive to communication(s) filed on 12/26/01
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1, 2 is/are pending in the application.
- Of the above claim(s) is/are withdrawn from consideration.
- ☐ Claim(s) is/are allowed.
- ☒ Claim(s) 1, 2 is/are rejected.
- ☐ Claim(s) is/are objected to.
- ☐ Claim(s) are subject to restriction or election requirement

Application Papers

- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☒ The drawing(s) filed on 12/26/01 is/are objected to by the Examiner
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- ☒ All ☐ Some* ☐ None of the:
 - ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____
 - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s) _____
- ☒ Notice of Reference(s) Cited, PTO-892 ✓
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other _____

Office Action Summary

1. Figures 2, 3, and 4 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description:

The reference sign 12, identified as a "screw-shaped stirring member," is not present in Figure 1. See the specification, page 14, line 4.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1 and 2 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 2 are indefinite in the phrase "in case where the shape coefficients SF1, SF2 of said toners . . . are respectively defined according to the following expressions (1), (2) . . . said shape coefficients SF1, SF2 can respectively satisfy the following conditions . . ." (emphasis added) because it is not clear whether: (1) the claims require that the toners have the shape coefficients SF1 and SF2 that meet the conditions; or (2) the shape coefficients SF1 and SF2 are merely exemplary of the remainder of the claim, and therefore not required.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f), or (g) prior art under 35 U.S.C. 103(a).

8. The claim language "in case where the shape coefficients SF1, SF2 of said toners . . . are respectively defined according to the following expressions (1), (2) . . . said shape coefficients SF1, SF2 can respectively satisfy the following conditions" (emphasis added) recited in instant claims 1 and 2 is interpreted

by the examiner to mean that the shape coefficients are merely exemplary and are not required by the claims. A rejection based on this interpretation follows.

9. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by US 5,923,933 (Anzai).

Anzai discloses an image forming method comprising the steps of: (1) developing an electrostatic latent image formed on an image carrier 1 with a two-component developer comprising a toner and magnetic carrier; (2) transferring the toner image onto a recording medium; and (3) fixing the transferred toner image to the recording medium using the fixing device 25. See Fig. 1, col. 4, lines 27-34, and col. 4, line 56, to col. 5, line 5. The electrostatic latent image is developed by a first developing roller 61 and a second developing roller 62 rotating in directions opposite to each other. The first developing roller 61 moves in a direction opposite to the image carrier 1, and the second roller 62 moves in the same direction as the image carrier 1. Anzai discloses that when the ratio of circumferential (or peripheral) speed S1 of first developing roller 61 to the circumferential speed of the image carrier is set to 1.5, the ratio of the circumferential speed of the second roller to the image carrier S2 is preferably in the range of 2

to 3 to obtain an "allowable image." Col. 12, lines 23-27. The ratio S1 of 1.5 and the ratio S2 of 2 are within the ranges of 0.8 to 2.0 and 1.05 to 2.0, respectively, recited in instant claims 1 and 2.

10. For the remaining rejection, which is made in the alternative, the claim language "in case where the shape coefficients SF1, SF2 of said toners . . . are respectively defined according to the following expressions (1), (2) . . . said shape coefficients SF1, SF2 can respectively satisfy the following conditions . . ." (emphasis added) recited in instant claims 1 and 2 is interpreted by the examiner to mean that the shape coefficients are required by the claims. Without this interpretation, these coefficients are merely optional: see the rejection for indefiniteness, set forth in paragraph 4, supra.

11. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anzai combined with Japanese Patent 2000-267338 (JP'338). See the Japanese Patent Office machine-assisted translation of JP'338.

Anzai discloses an image forming method as described in paragraph 9 above, which is incorporated herein by reference.

Anzai does not disclose the use of a toner having the shape coefficients SF1 and SF2 as recited in instant claims 1 and 2.

Anzai discloses that "the toner used is a toner containing a resin, a coloring material, a charging control material and so on and having a volume average particle size of 5 to 12 μm ." Anzai teaches that toners having said particles are capable of providing a "high resolution print above 16 lines per mm."

Col. 9, lines 52-60.

JP'338 discloses a toner having shape coefficients SF1 and SF2 of 148 and 123, which are within the ranges of 120 to 170 and 110 to 130, respectively, recited in instant claims 1 and 2. See toner 1 at paragraphs 0058-0060, and Table 1 at paragraph 0075.

The toner has a volume average particle size of 8.0 μm . See paragraph 0059. The volume average particle size of 8.0 μm is within the range of 5 to 12 μm taught by Anzai. JP'338's toner comprises a polyester binder resin, a wax, and colorant. JP'338 teaches that the toner may further comprise a charge control agent to adjust the electrification of the toner.

Paragraph 0048. JP'338 discloses that its toner can be used in a two-component developer comprising a magnetic carrier.

Paragraphs 0052-0053. Accordingly to JP'338, its toner has superior powder characteristics, such as storage stability, and good offset resistance. Paragraphs 0007 and 0076. JP'338 further discloses that its toner can be fixed without the use of a releasing oil. Paragraph 0054. JP'338 discloses that when the releasing oil evaporates, an unpleasant smell may be given or it

may contaminate the "inside the plane." Paragraph 0004,
lines 13-14.

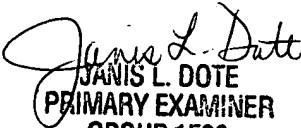
It would have been obvious for a person having ordinary skill in the art to use JP'338's toner 1 having shape coefficients SF1 and SF2 of 148 and 123, respectively, as the toner in the image forming method discloses by Anzai, and to use a fixing device without the use of a release oil in the fixing step in said method, because that person would have had a reasonable expectation of successfully obtaining an image forming method that provides fixed toned images on recording media without offset and without unpleasant odors.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janis L. Dote whose telephone number is (703) 308-3625. The examiner can normally be reached Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Mark Huff, can be reached on (703) 308-2464. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9311 (Rightfax) for after final faxes, and (703) 872-9310 for other official faxes.

Any inquiry of papers not received regarding this communication or earlier communications, or of a general nature or relating to the status of this application or proceeding should be directed should be directed to the Customer Service Center of Technology Center 1700 whose telephone number is (703) 306-5665.

JLD
March 13, 2003


JANIS L. DOTE
PRIMARY EXAMINER
GROUP 1500
1700